How to Validate Data on Maintenance View(SM30) Before Save

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Active Contributor

2023 Mar 22 6:16 AM

13 Kudos

17,912 Views

Hi,

In this blog post, I would like to show you how to validate data on maintenance view screen before save.

Maintenance views are very useful interfaces to create a viewer and editor for database tables. And with events and search helps, we can make them even more useful.

In this blog post, we will create a table, where we can map company codes to special ranges for purchase orders. Table will have only 3 fields, client, company code and range. Before saving data on maintenance view, we will check both company code and range and if they are not valid we will warn user and will not let data to be saved.

Table

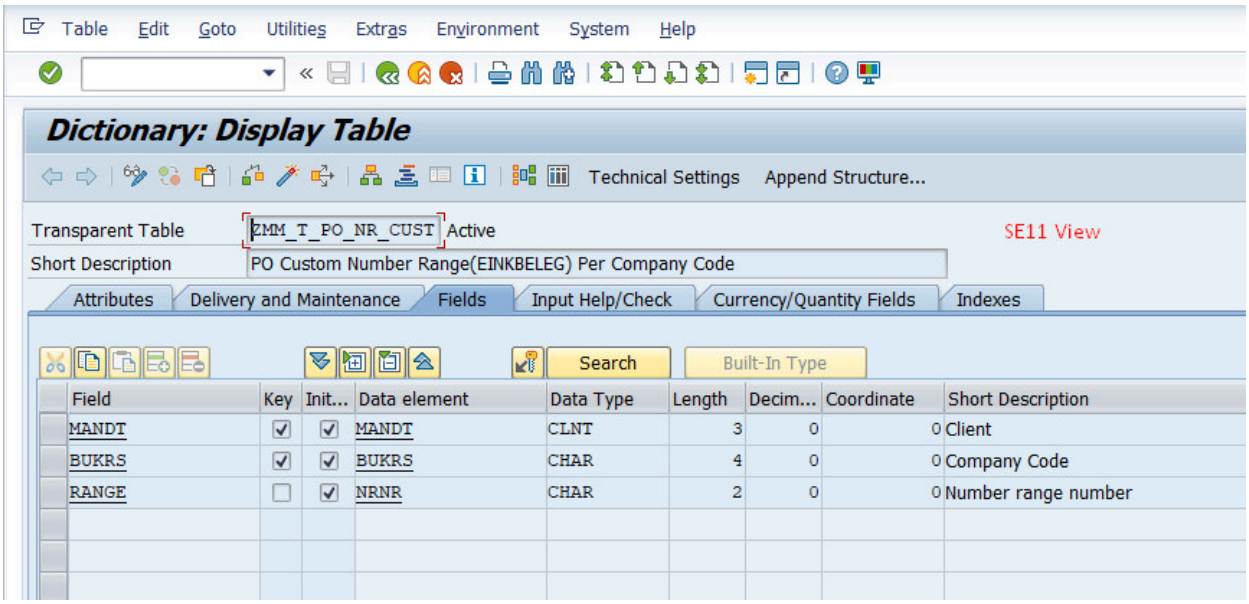
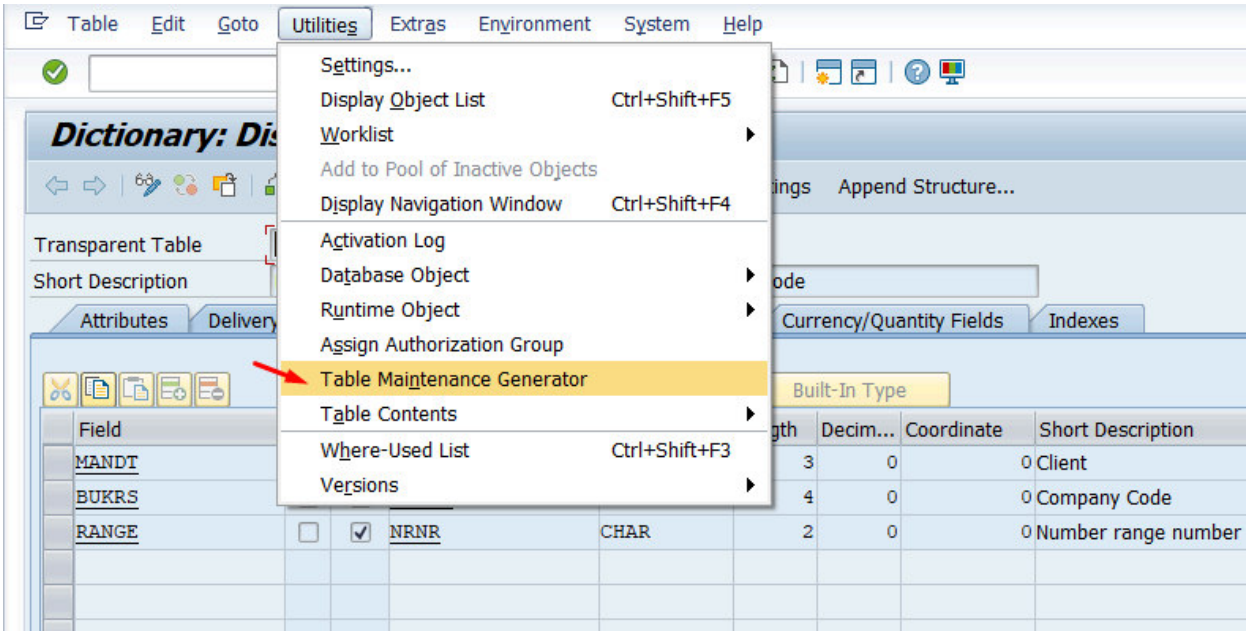
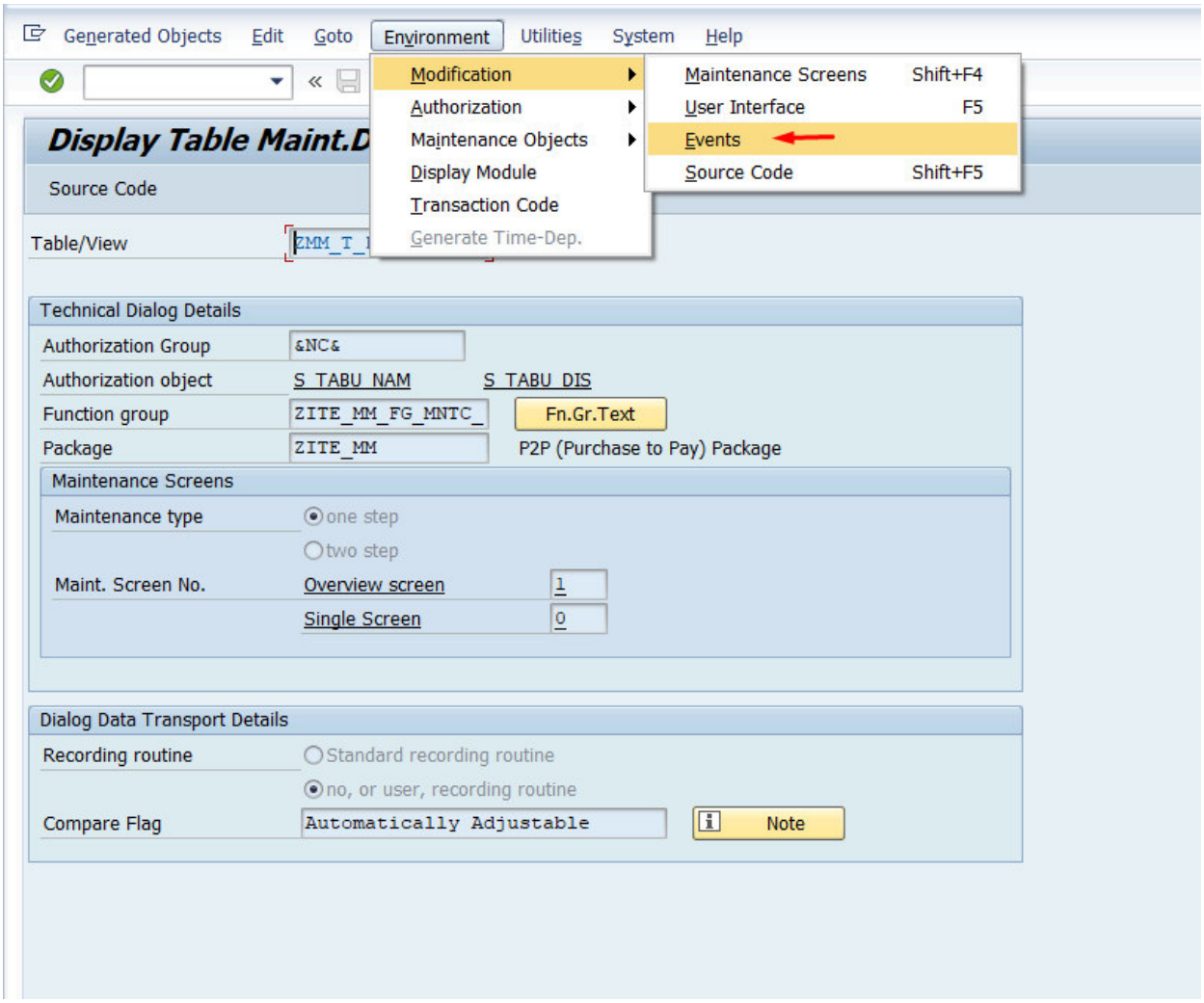


Table Structure



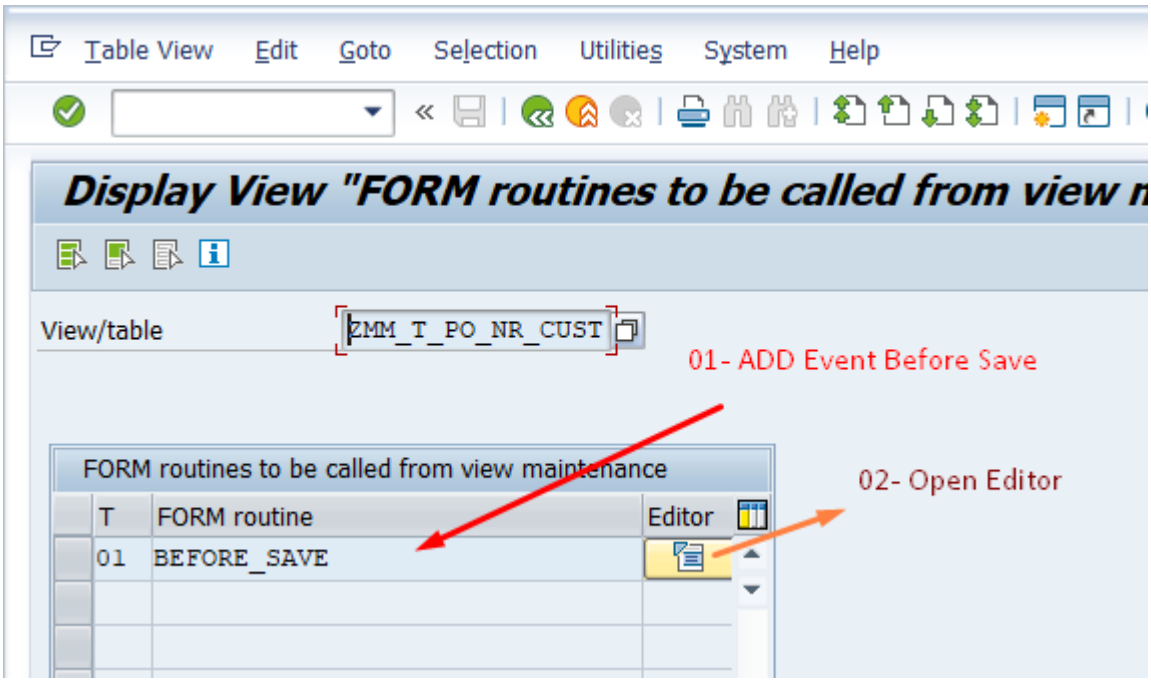
Open Maintenance View

I assume you have created a maintenance view. And willing to add event to validate data. If you don't know how to create maintenance view, please read on that link.



Add Event to Maintenance View

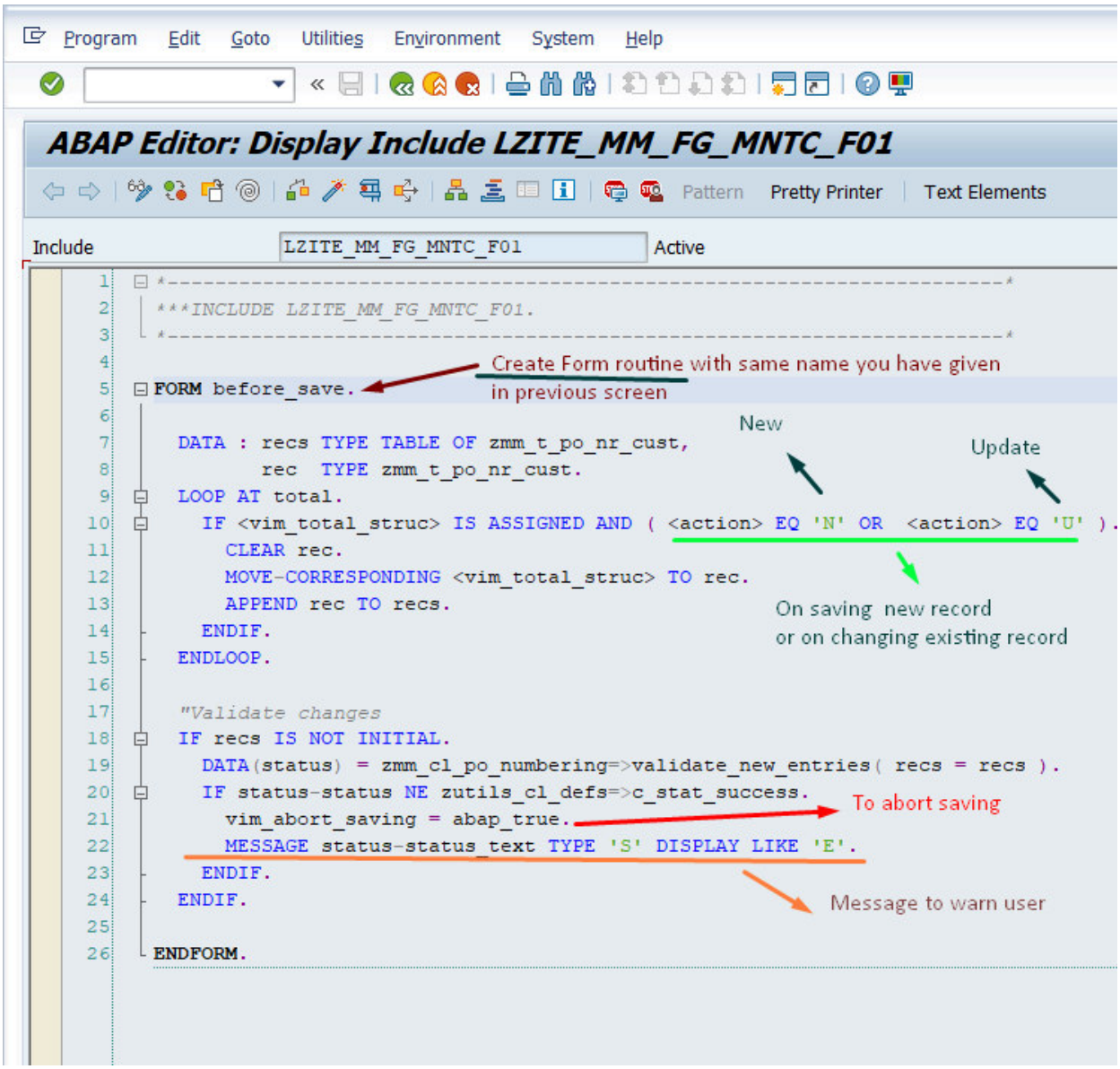
Add event before save and give a form name to be called when event is triggered.



Add Event and Form Name

Code Block

Click open editor and create form that you have given above (BEFORE_SAVE in that example)




```
1  *---------------------------------------------------------------------*
2  ***INCLUDE LZITE_MM_FG_MNTC_F01.
3  *---------------------------------------------------------------------*
4
5  FORM before_save.
6
7    DATA : recs TYPE TABLE OF zmm_t_po_nr_cust,
8           rec  TYPE zmm_t_po_nr_cust.
9    LOOP AT total.
10     IF <vim_total_struc> IS ASSIGNED AND ( <action> EQ 'N' OR  <action> EQ 'U' ).
11       CLEAR rec.
12       MOVE-CORRESPONDING <vim_total_struc> TO rec.
13       APPEND rec TO recs.
14     ENDIF.
15   ENDLOOP.
16
17   "Validate changes
18   IF recs IS NOT INITIAL.
19     DATA(status) = zmm_cl_po_numbering=>validate_new_entries( recs = recs ).
20     IF status-status NE zutils_cl_defs=>c_stat_success.
21       vim_abort_saving = abap_true.
22       MESSAGE status-status_text TYPE 'S' DISPLAY LIKE 'E'.
23     ENDIF.
24   ENDIF.
25
26 ENDFORM.
```

FORM Content of BEFORE_SAVE

Above, from line 9 to 15 are used to collect new records or changed records data to recs internal table. **total** table contains all records and when we loop on total records, **<vim_total_struc>** field-symbol is assigned, by checking **<action>** field-symbol we can learn about state of record, if it is new or updated or being deleted.

Later on line 19, recs table is passed to a class that contains validation logic. That class method returns a status structure. If result is not success. we are setting **vim_abort_saving = abap_true** on line 21. In that way, saving will not happen.

And we are showing message to inform user on line 22.

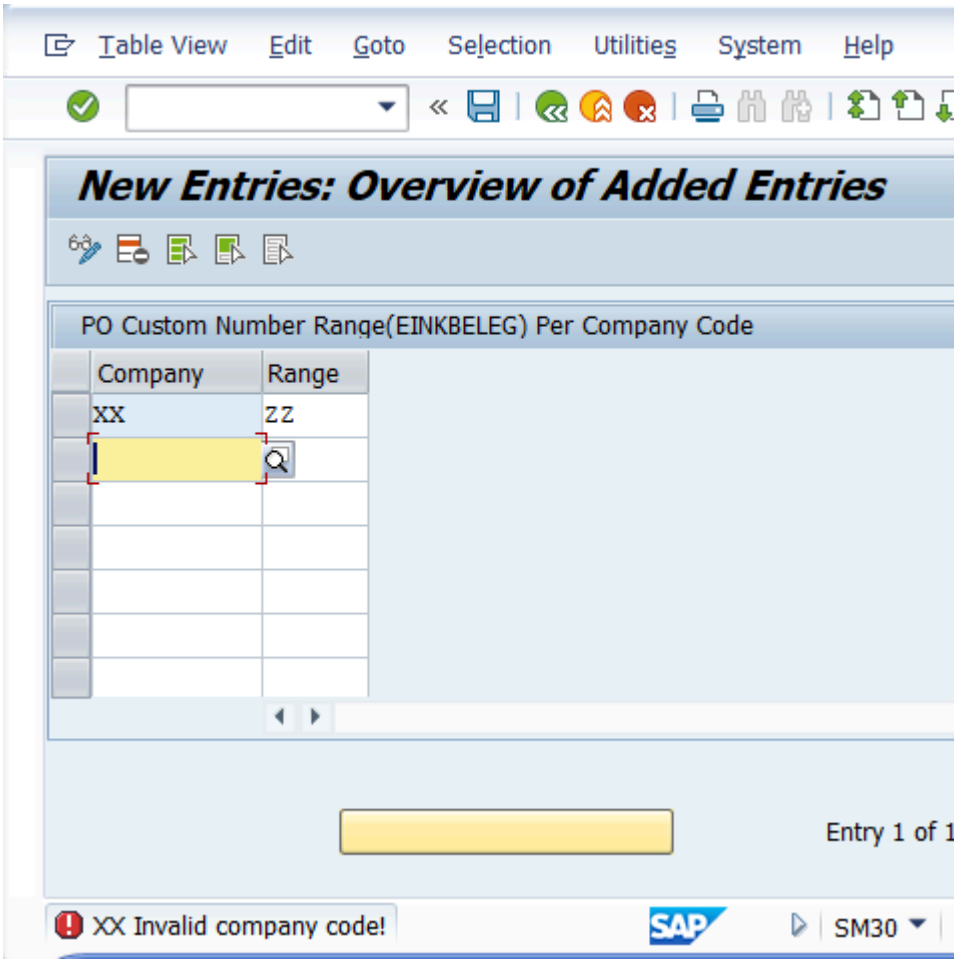
Here are the lines, that will be useful for you.

```
FORM before_save.
  "Collect records to be checked
  DATA : recs TYPE TABLE OF zmm_t_po_nr_cust,
         rec  TYPE zmm_t_po_nr_cust.
  LOOP AT total.
    IF <vim_total_struc> IS ASSIGNED AND ( <action> EQ 'N' OR  <actic
      CLEAR rec.
      MOVE-CORRESPONDING <vim_total_struc> TO rec.
      APPEND rec TO recs.
    ENDIF.
  ENDLOOP.

  "Validate changes
  IF recs IS NOT INITIAL.
    "Place your logic below
    DATA(status) = zmm_cl_po_numbering=>validate_new_entries( recs =
    IF status-status NE zutils_cl_defs=>c_stat_success.
      vim_abort_saving = abap_true. "To abort saving
      MESSAGE status-status_text TYPE 'S' DISPLAY LIKE 'E'.
    ENDIF.
  ENDIF.

ENDFORM.
```

Activate your changes and go to sm30 to test.



Try to save data with invalid company code

That is all. I hope that is useful for you.

Thanks for reading.

Reference Links

https://blogs.sap.com/2015/10/29/validate-data-in-table-maintenance-generator-event/

https://blogs.sap.com/2012/03/12/viewmaintain-subset-of-data-in-table-maintenance-generator/

Tags:

sm30table

Comments

R rkrish18 Explorer

2023 Sep 26
12:56 AM

Great Blog. I just have one question: there is any way to allow the user to correct the entry? The validation works in stopping the user, but it greyed out the field, so the user is not able to correct the entry and it has to leave SM30 completely and get back in again. I tried using just a success message, but the result was the same.

Best Regards:

Luis Lara

M mgross1 Participant

2024 May 24
1:38 PM
-
edited
2024 May 24
1:39 PM

- edited
Why not just use a foreign key to the company code master? Then there will be automatic validation in SM30.